Castlemaine Naturalist

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Monthly newsletter of the Castlemaine Field Naturalists Club Inc.

Sleepy Lizard photo by Euan Moore

Behavioural ecology of the Sleepy Lizard

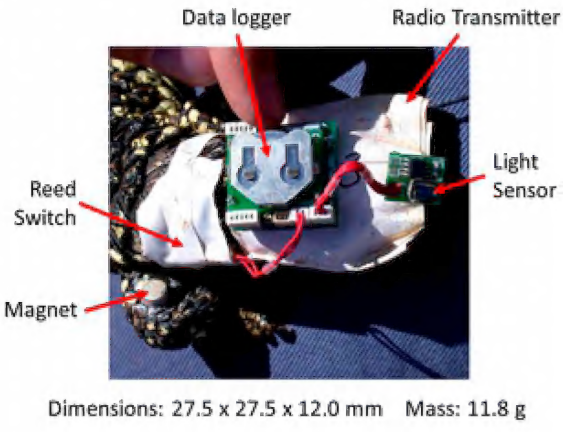
Presentation by Dr Greg Kerr, Senior Ecologist at Nature Glenelg Trust

Our guest speaker at the CFNC July Zoom meeting gave us a fascinating talk on his research into the behavioural ecology of the Australian Sleepy Lizard (*Tiliqua rugosa* – rugosa means very hard, bony scales), also known as the Shingleback, Stumpytail or Pinecone Lizard. Working in the Chenopod shrublands of NE Eudunda, SA, Greg carried out this research in the early 2000s as part of his PhD studies at Flinders University.

The Sleepy Lizard is a large day-active skink which occupies stable overlapping home ranges. It is a mostly monogamous skink species (rare for lizards), usually from 280 – 340 mm in length, and weighing 400-800 grams. Mating in November, young are born March/April, about half adult size. In the first year only around one in ten will survive, raptors and snakes being the major predators. As they reach adulthood at 3-4 years of age, their scaly backs harden, giving better protection from predation. They are regarded as a long-lived lizard species, with a slow digestive system requiring relatively small amounts of food. Some major sources of food are Wards Weed and Salvation Jane (Riverina Bluebell, etc!). Greg found that a cyanobacteria (*Nostoc commune*) was an occasional food and water source of the Sleepy Lizard, especially in periods after rain, when the water-swollen Nostoc resulted in a rapid increase in weight of the lizard.

Greg designed an ingenious 'onboard' GPS and radio unit for tracking lizards' movements and body temperature in relation to ambient temperature and light. It incorporated a radio transmitter, light sensor (to show if it was under a bush or not), and a thermometer underneath (for body temperature) and on the back (for ambient temperature). A separate logger in the environment sitting just above the ground monitored ambient

light. The number of steps taken per 2 minutes (stride count) was measured by a magnet moving past a switch. Importantly, information was gathered in the absence of an observer, thus avoiding the 'observer effect'.



Greg studied up to thirty lizards at a time, over a three-year period. Using these data, activity patterns, behaviour and microhabitat choice could be determined. Greg showed how lizards carefully maintain body temperature during the day by moving under bushes (low light levels) or out into the sunlight. Interesting differences were found between dry and rainy periods and between sexes.

A good example of Greg's research here is a study of the home ranges of the lizards. Tracking studies showed that while the larger outer region of the home range could overlap with other lizards' ranges (the 'sally zone'), there were inner exclusive core areas. By studying territoriality and gender overlap within these core areas, Greg determined factors affecting monogamy. It appears that benefits to females from male association may change with environmental quality, such that if food resources are low, monogamy may be favoured. The increased foraging efficiency of females observed at this time was likely due to the male guarding against predators (the 'Constrained Female Hypothesis').

The relationship between Australian Sleepy Lizard microhabitat use and tick (*Amblyomma limbatum*) population dynamics was another fascinating aspect of Greg's studies. Over 3 years between 23 and 50 lizards were radio-tracked up to four times a week to record microhabitat use and each fortnight to determine tick loads. Daily maximum temperature was highly predictive of lizard microhabitat use. Peak background tick infestation levels and pulses of attachment coincided with higher ambient temperature. Male ticks attached throughout the year independent of season. Engorged females detached late in spring, summer and autumn, when climate regularly restricted lizards to a few thermally conservative refuges. Peak nymph and larval attachment occurred over summer and into autumn. Climate-dependent timing and type of host refuge use may influence tick population density. In more temperate summers lizards may avoid refuges with potentially high parasite loads.

The above is really just a snapshot of Greg's fact-filled talk. But this research gave us new insights into the behaviour and environmental interactions of one of our much-loved lizards, the slow-moving Stumpytail!!

– **Brian Cutler**

August Observations (Wild Life August 1943)

George Broadway

There were very few specimens this month which we had not met before. If people had been regular readers surely they would have been able to recognise these specimens. I guess the magazine must have been acquiring new subscribers.

To satisfy a demand from servicemen up North there was an article on the preservation of butterflies as many servicemen were developing an interest in the strange insects they were encountering.

BIRDS

Wandin Yallock: The Marten is a small mammal found in European countries while the Martin is a bird related to the swallow, the two together forming the Hirundidae. Swallows have deeply forked tails while Martin tails are less forked or square. Swallows have scaly feet and legs while Martin legs are feathered.

Beulah: The reader had come across a reference to a "Poll Parrot" and would like to know more about it. However Poll Parrot is simply a name for any pet parrot which may be compared to the term "Dicky Bird"

GENERAL

Jeparit: Johnny Hairy-legs or House Centipede or *Scutigera.* Harmless and good as it eats insects. [Jan'17]

Kew: Stingrays are closely related to the sharks both being cartilaginous, not bony like most fish. Like sharks some are viviparous, producing live young while others produce large eggs usually equipped with tendrils to anchor them among seaweeds for protection.

McCrae: The crabs you mentioned sometimes increase in numbers enormously to the point that there is insufficient food for them so the majority starve. (I wonder if this refers to the Spider Crabs of Port Phillip which occur in enormous numbers each year)

Brighton: A Prawn-killer or *Ibacus.* [See Aug'19]. Related to the crayfish, not often seen because it is well camouflaged. Preys on smaller crustaceans.

BOTANICAL

Piangil: Twining plant with narrow leaves and rather large green milky fruit filled with seeds with silky tails is the Austral Doubah or *Marsdenia australis.* The fruit is called the Native Pear and was eaten by the natives. It occurs only in the Mallee and there it is uncommon. Your second specimen was Pattersons Curse, *Echium plantagineum*, now all too common.

Photo:
Sunraysia Field Naturalists Club investigating Austral Doubah

Somerville: The lovely blue flower is Pattersons Lily *Pattersonia glauca*, one of our most attractive natives, which flourishes in unspoiled parts of the Mornington peninsula. (I hope that this is still true today)

INSECTS

Castlemaine: from Noreen Duncan. Larva of the Vine Hawk Moth. [Feb '18]

Preston: Longicorn Beetle or Firewood Beetle, *Phorocantha tricuspis.* [Nov '16]

Hawksburn: It is a common belief that the ordinary blowfly feeds on the nectar of flowers and visits meat only to deposit its young. Many kinds of fly superficially resembling blowflies do frequent flowers and do not trouble meat at all. They deposit their eggs in stagnant pools where the larvae live in the water and the adults feed on insects found among the flowers.

Bentleigh: Large Speckled Grasshopper, in numbers at present. Seldom in numbers sufficient to be a plague. One of our largest short-horned grasshoppers all of which have a strictly vegetarian diet.

Brunswick: Painted Apple Moth, A native pest with a wide range of food plants which includes apples. Female is wingless and looks like a grub. [Aug '17]

Preston: Tree Cricket, *Paragryillacris.* [Jun '16]

Teal Point: (Near Koondrook) The enormous insect was a Pink-shouldered Phasma, one of the stick insects which hide themselves by looking like the sticks and leaves among which it lives. The pink shoulders are normally covered by the folded wing cases.

Sth Melb: A Woolly Bear, the larva of a Footman Moth. [June '16] The caterpillar eats a number of garden plants and the moth is white with a few dark flecks on the wings.

Newtown (Geelong): The specimen found in the shell grit was the larva of one of the Longicorn Beetles which are borers and frequently found in firewood, in fact they are also known as firewood beetles. (Less common these days as most people use gas)

Dareton (Near Mildura): One of the less common types of casemoth. Most casemoths cover the whole of their cases with sticks or leaves instead of having only two little sticks at the base like this one. The caterpillar spins a tiny case as soon as it emerges from the egg and from then on it carries it about with it constantly, only protruding about one third of its body to move or feed. [Oct '16]

Stawell: A Mole cricket found on a path apparently because it encountered concrete which it could not tunnel through.

Essendon: Rhinocera Scarab, *Bolboceras*. Closely related to the Egyptian Scarab and the Dung Beetle.

Elsternwick: Young specimen of Tree Cricket. [June '16]. Also Footscray

Merricks: Male Ghost Moth. Flies by night and mostly emerges on nights which are cold and wet when they are apt to fly past one's face rather startlingly - hence the name "ghost" [Sep '16]

Glenloth (Near Wycheproof): Larva of the Drinker Moth *Pinara.* Feeds principally on gum leaves although some species have taken to infesting apple trees. [Dec '16]

Pleasant Creek (Stawell): Light-brown frothy masses are not harmful to the plant,

they are the egg masses of a large Praying Mantis which is useful because it eats a variety of insects.

Sandringham: The insect with the pincers at the tail was an Earwig, not dangerous but can cause trouble in the garden. In New Zealand some years ago they were so troublesome that it was found necessary to introduce natural enemies to deal with them. (Makes me wonder why the same measures have not been taken here. And what were the natural enemies?)

SPIDERS

Woomelang and nine other locations: Orchard Spider, *Celaenia excavate.* Appears frequently. [July '16]

A CN milestone

This is the 500th edition of the Castlemaine Naturalist. Its beginnings can be traced to a time shortly after the formation of the club in 1976, pages being typed out and copies produced at a charge of 10c, to be picked up at the Market building. Edited by Ern Perkins, the newsletter was very informative from the beginning. It is worth perusing – all editions are now available from our website.

NY and JR, editors

CFNC Field Excursion - Fungi on the Mount

Jill Williams

On Saturday 10 July, excursion leader Joy Clusker led an intrepid group of 39 'fungiphiles' (CFNC members and visitors) on an excursion in the Whisky Gully on Mt. Alexander.

The recent rain and dewy mornings together with all the leaf and organic matter provided a rich humus for the developing fungi.

Armed with a variety of cameras and mirrors, Joy scouted and identified 32 species of fungi. Some were common easily identifiable species, others were for some of us, first time observations. Even in the shadows of rotting tree trunks, there were vibrant colours such as orange, yellow, green and white. Others were of a more subdued colour, beige, brown and mushroom.

Mirrors were useful for identification as it is equally important to observe the underside of species – gills or pores, colour, and if the timing of age is right, the colour of the spores.

In addition to the common mushroom-shaped varieties, the day's collection also included examples of coral, jelly, brain and bracket species.

Like most novices, I was attracted to the brightly coloured individuals, but thanks to Joy and her scribe Judith on the day, when reviewing the completed list at home, realised that I missed some of the others.

After two hours as the sun dropped lower to the west, we returned to the parking area to review the afternoon's collection and a warm drink.

Mt. Alexander Fungi Gallery by Jill Williams

Mycena vinacea

Heterotexus peziziformis

Mucronella pendula

Tremella mesentarica

Parasola plicatilis

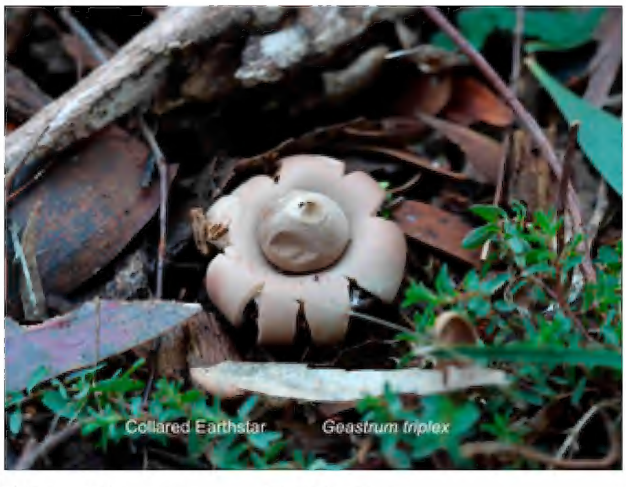
Ramaria lorithamnus

Calocera sinensis

Mt. Alexander excursion photos by others

Euan Moore: The mirror trick,

and photographers at work



Noel Young: Earthstar

Honeycomb fungus *Hexagonia vesparia*

Three new National Parks in Victoria protecting Central West Forests

The Government has recently committed to creating a new Wombat-Lerderderg National Park, Mount Buangor National Park and Pyrenees National Park as well as a number of other parks and reserves throughout the region in response to the VEAC's recommendations about the Central West Forests (2019). This will result in an increase of approximately 50,000 hectares to Victoria's reserve system, with protection of important habitat connectivity for rare and threatened animals and plants.

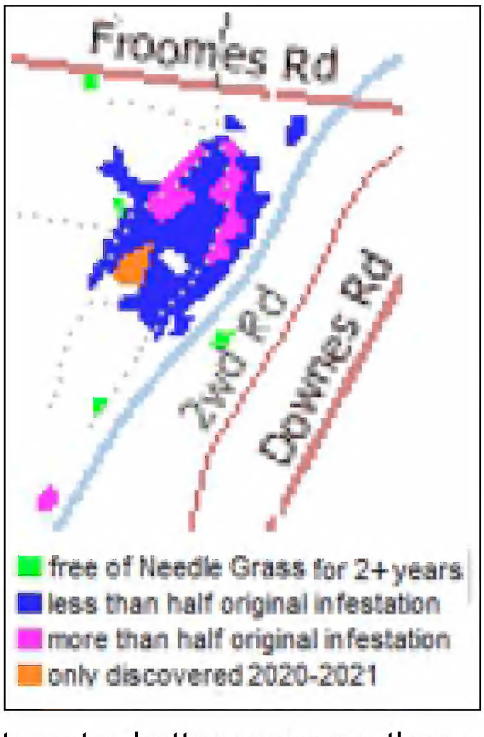
While this news has been welcomed by environment groups such as Wombat Forestcare and VNPA who have long campaigned for the creation of these national parks, they point out that there are hitches. The government will allow VicForests to continue to harvest "commercial firewood coupes" in the Wombat Forest and to continue to harvest sawlogs at Mt Cole and the Pyrenees until 2030. There is also concern that although the Wellsford State Forest will be protected as a regional park (not part national park as recommended by VEAC), it could still be vulnerable

to mining development, domestic fire wood collection, and inappropriate recreational uses.

Details about the Government's proposals for these new parks, as well as their limitations, can be viewed on the VNPA's website. And for an inspiring call from Wombat Forestcare for the urgent legislation of these long awaited national parks, view Alison Pouliot's video.

Needle Grasses Down But Not Out

Seven CFNC members and twelve others together contributed nearly 150 person hours at working bees to dig out needle grasses at the Castlemaine Botanical Gardens (CBG) Flora & Fauna Reserve during the 2020-2021 season. Many thanks to all who helped! Apparently it's not only the environment that benefits from this sort of work. According to *North Central Chat* (North Central Catchment Management Authority, July 2021) a report by KPMG in partnership with Landcare Australia has found that Landcare work helps wellbeing and decreases the amount needed to be spent on health care.



The map shows the progress we've made since Parks & Gardens worker Jaim alerted me to the infestation in the Gardens in 2016. The map also indicates that the job isn't finished yet, and we plan to discuss with Council how council workers can gradually take over the work. Sandra Hodge, Parks & Gardens Team Leader in charge of the CBG, has already got two workshops in spring planned for workers to increase their skills in identifying and removing needle grasses.

In the meantime, we've received our fourth (out of 5) Council grants for the 2021-22 season to pay for removing needle grasses from roadsides.

Working bees are likely to start again in about mid-October. If you haven't helped before and would like to, please let me know (phone 5470 5072 between 7am and 7pm). Phoning people seems to get a better response than emailing, so if you're waiting for an email, you might miss a working bee.

Lobbying gets results

Council received six budget submissions on natural environment themes. As a result it increased the hours of the Natural Environment Officer from three days a week to full time and allocated an extra $10,000 for weed removal. This extra money was also given the previous financial year as a result of a budget submission calling for more weed removal resources.

Margaret Panter, Needle Grass Project Co-ordinator

Birds of Sutton Grange July 2021

Nigel Harland

Superb Fairywren	Red-browed Finch	White-browed Scrubwren
Australian Magpie	Australian Raven	Laughing Kookaburra
Yellow-tufted Honeyeater	Sulphur-crested Cockatoo	Long-billed Corella
Crimson Rosella	New Holland Honeyeater	Welcome Swallow
Common Bronzewing	Red Wattlebird	Galah
Striated Pardalote	Silvereye	Grey Shrike-thrush
Eurasian Blackbird	Brown Falcon	

Silvereyes often appear in the winter months. They come from Tasmania and exhibit a chestnut flank.

Two Brown Falcons over the property recently, upswept wings give them away.

Observations

Margaret Panter

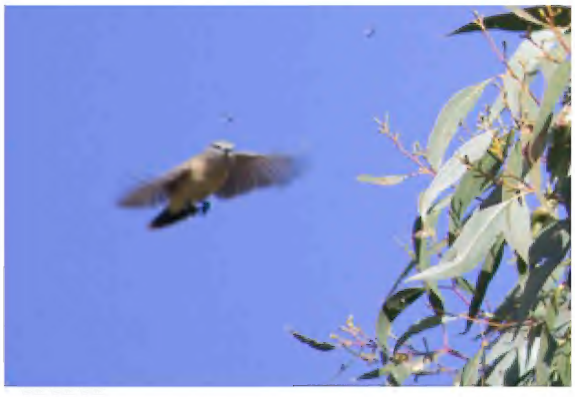
I found a dead Wanderer butterfly (*Danaus plexippus*) in Forest St Castlemaine in (I think) early May. I hadn't seen a Wanderer for many years.

I saw a bat at my place in Butterworth St on 24 June. I lifted some hessian bags off a pile that were hanging up and I must have disturbed it. It flapped around for a while, looking as if it were searching for something, then found a chink between a weatherboard and a window frame 20mm at its widest end and folded itself up into this gap. The next time I looked, I couldn't see it. It had charcoal coloured underwings with I think at least a 30cm wingspan and two-tone body fur (brown and light). Its face reminded me of a mouse. I couldn't identify it from Chris Tzaros' Wildlife of the Box Ironbark Country or The Australian Museum Complete Book of Australian Mammals (R. Strachan, ed), but I wondered if it might be a Southern Forest Bat (*Vespadelus regulus*), which Tzaros says is found in the Castlemaine area.

Judy Hopley

Lovely couple of hours looking at fungi on Mt Alexander. I'm sure that others will supply you with some wonderful pics of the interesting plants seen. We were gardening at home this morning and much to our amazement found these plants in our front garden (positive they weren't there yesterday!) I Think they are orange peel fungi but not very good at identification.

Kerrie Jennings



Yellow-rumped Thornbill, Flame Robin – M&F.

The pics are unremarkable in themselves but the behaviour is not what is described in books such as Pizzey.

e.g. The YRT was actively chasing insects on the wing at the top of a tall sapling and the FR was doing the same. Both birds are described as working close to the ground. All is not as it seems.

Rosemary and Peter Turner

1. Cherry Ballart: Walking in Kalimna yesterday, at the end of the short hill track that ends close to Hunter Track, we saw this young *Exocarpus cupressiformis*, but were puzzled by the leaves at base of the stems. Rosemary looked up various books, but the only reference confirming the observation was in Jean Galbraith's Collins Guide to Wild Flowers of SE Australia (1977): "Shapely small tree; bracelets tassel-like, bright green, becoming darker. Seedling leaves narrow, to 1 1/2" Young but somewhat larger plants in the CBG Nature Reserve have already lost these juvenile leaves.

2. Nodding Greenhoods: August 1st in Kalimna by the cutting just north of Hunter track. Extensive numbers of rosettes. A few flowering. And a patch where Choughs (?) had dug up some.

Guest Speaker Friday August 13, 7.30 pm

Meeting by Zoom (see details for joining on the back page)

Rod Orr, Bendigo FNC

"Native Plants of the Fryers Ridge area"

Rod Orr and his wife Jan have been visiting the bushland in the Fryers Ridge area for many years in all seasons, finding many plants, animals and fungi in the forests well known to many of us. Rod will show share with us his observations of the native plants organised by months to illustrate when they are flowering at their best, recognising that flowering times may often vary widely in responding to many natural factors and many species flower over several months. Rod will be asking those of us who also visit the area to mention any special plants he might not include in his presentation.

Excursion Saturday August 14th, 1.30 pm - Fryers Ridge

Rod Orr will lead a car tour along several roads in the Fryers Ridge area, stopping at key places for short walks, with a focus on seeing particular plants that were identified during his talk.

Bring: Wet weather gear, boots, cameras and afternoon tea**.**

Meet: 1.30pm at the Octopus, Duke St, opposite the Castle Motel, Castlemaine, to arrange car pooling.

Please comply with Government COVID-safe requirements on the day. The Field Trip will be cancelled in extreme weather conditions.

From your Committee

Welcome To New Members:

Yvonne Hsu, Helen Lawrence, Brenda Moon, Judith Nimmo, Karla Stacey

We wish them all a happy and stimulating association with the club.

Program for 2022

We are currently planning the program for next year and would value your suggestions for monthly meeting topics/speakers and excursions/leaders. At this stage we don't know whether monthly meetings will be face to face again and/or by zoom, so send speaker suggestions even if they are not local: castlemainefnc@hotmail.com.

Website update

A major upgrade is being planned for the CFNC website, and we have formed a working party to assist with this. If you would like to help with revisions, e.g. text or photographs, please contact us: castlemainefnc@hotmail.com. Suggestions for useful additional information to be added welcomed.

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists Club

COMING EVENTS

Monthly meetings will continue to be held on-line via ZOOM until further notice, commencing at 7.30pm. If you have registered for our previous webinar meetings you will be sent the link for registering with Zoom. If you have not joined before and wish to attend, please email Peter Turner at munrodsl@iinet.net.au

Our guest speaker will follow the usual 'observations' session when members can share recent interesting sightings with an option to show a photo or two. If you have photos to be shown please email JPEG file(s) to Euan Moore at calamanthus5@bigpond.com by Noon on the day of the meeting.

Excursions will be held this year (subject to any changes in COVID restrictions) on the Saturday after the monthly meeting. Meet at the Octopus (opposite the motel in Duke St) for departure at 1.30pm unless otherwise advised.

Fri Aug 13 Meeting: Speaker – Rod Orr (Bendigo FNC) 'Flora of Fryers Ridge'

Sat Aug 14 Excursion: 'Fryers Ridge Wildflowers' with Rod Orr

Mon Aug 16 Roadside clean-up: Postponed

Fri Sept 10 Meeting: Speaker - Cathrine Harboe-Ree – 'Nature in the far south: A journey to the Antarctic'

Sat Sept 11 Excursion: 'Chewton Bushlands'

Fri Oct 8 Meeting: Speaker - Chris Timewell (Birdlife Australia) "State of Box-Ironbark Woodland birds". Joint meeting with Birdlife Castlemaine District

Business meetings - third Thursday of each month.

Club website (Web master: Ron Wescott) - http://castlemainefnc.wordpress.com/

Castlemaine Naturalist - email newsletter material to: newsletter.cfnc@gmail.com

*Deadline for the September edition is 28th of August.

Subscriptions for 2021

Ordinary membership: Single $35, Family $50
Pensioner or student: Single $25, Family $30
Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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